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July 29, 2015

Ms. Debra Hembree
Actuarial Services Coordinator
Oregon PERS

Re: GASB 68 Employer Reporting for June 30, 2014 Measurement Date

Dear Debra,

As requested, we prepared the attached exhibits to assist the Oregon Public Employees Retirement System ("PERS" or "the System") in providing financial reporting information to participating employers using a June 30, 2014 Measurement Date. We understand PERS will provide employers the information needed to fulfill Governmental Accounting Standards Board Statements No. 68 (GASB 68) reporting requirements.

As required by GASB, all results shown on the attached exhibits are based on the benefit provisions in effect as of the Measurement Date, and as such do not reflect the impact of the Supreme Court's decision in *Moro v. State of Oregon*, which occurred in April 2015 subsequent to the Measurement Date. The estimated effect of the *Moro* decision on the System's collective Net Pension Liability is discussed below under "Changes Subsequent to Measurement Date". This information may be used by individual employers to determine an estimate of the expected change in the employer's proportionate share of the collective pension liability, as described in paragraph 80f of GASB 68.

The attached exhibits also are intended to assist the System's auditor in reviewing the development of financial reporting information.

The attached exhibits are:

- Exhibit A: Collective Pension Expense
- Exhibit B: Schedule of Collective Deferred Outflows/(Inflows) of Resources
- Exhibit C: Net Pension Liability/(Asset) by Employer
- Exhibit D: Schedule of Pension Amounts by Employer
- Exhibit E: Proportionate Share – Development of Present Value of Future Normal Cost
- Exhibit F: Proportionate Share – Development of Unfunded Actuarial Liability (UAL)
- Exhibit G: Proportionate Share – Schedule of Employer Allocations
- Exhibit H: Deferred Outflows/(Inflows) for Employer-Specific Adjustments

Exhibit A shows the development of the System's "Collective Pension Expense" for the Measurement Period from June 30, 2013 to June 30, 2014. Exhibit B summarizes the deferred amounts relevant to the calculation of the Collective Pension Expense for the Measurement Period. Because PERS is considered a multiple-employer cost-sharing plan under GASB 68, all employers are required to recognize a proportionate share of the Collective Pension Expense. For employers with a June 30 fiscal year-end, this amount will first be recognized with June 30, 2015 financial reporting. (See "Measurement Date and Reporting Date Timing" below.)

The actuarial basis used to develop the Collective Pension Expense is identical to that used in preparing System financial reporting information as of June 30, 2014 under GASB 67, as described in our December 18, 2014 letter.

Exhibit C lists each employer's proportionate share of the Net Pension Liability / (Asset) at both the current and prior Measurement Date. The collective Net Pension Liability / (Asset) for the System is shown in the table below, which comes from our December 18, 2014 letter providing GASB 67 results for the system.

	Measurement Date	
Net Pension Liability (Asset)	**June 30, 2013**	**June 30, 2014**
Total pension liability	$ 63,582,060,239	$ 63,134,777,979
Fiduciary net position	58,478,913,732	65,401,492,664
Net pension liability (asset)	$ 5,103,146,507	$ (2,266,714,685)

Note that the sum of the Net Pension Liability / (Asset) allocated to employers on Exhibit B differs slightly from the amounts in the table due to rounding.

Exhibit D summarizes key information needed for GASB 68 reporting by employer. There are 795 employers included on this listing. The exhibit includes each employer's proportionate share of the Net Pension Liability, Collective Pension Expense, and Deferred Outflows and Inflows of Resources. In addition, the exhibit also shows expense and deferred amounts arising due to employer-specific adjustments described in Paragraphs 54 and 55 of GASB 68. These adjustments arise when an employer's proportionate share changes from one Measurement Date to another or when the employer's contributions during the Measurement Period (as reported to us by PERS) differ from the employer's proportionate share of all System contributions during the period.

The same information shown on Exhibit D will be provided in a separate one-page schedule for each employer shown on the list, which we understand PERS will distribute to employers.

Exhibits E through G show the development of each employer's proportionate share used in preparing the GASB 68 results. In accordance with the preference stated in GASB 68, this development is intended to represent each employer's estimated share of the projected long-term contribution effort to the System. Because the proportionate share is actuarially determined, it is developed as of the December 31, 2012 Actuarial Valuation Date used to develop the Total Pension Liability for the June 30, 2014 Measurement Date.

Additional background and rationale for the methodology used to develop the proportionate share was provided in a memo presented to the PERS Board at its November 2014 meeting.

Exhibit F shows the detailed development of the deferred amounts arising during the Measurement Period due to employer-specific adjustments under Paragraphs 54 and 55 of GASB 68.

Measurement Date and Reporting Date Timing

The results contained in the attached exhibits were developed as of a June 30, 2014 Measurement Date, based on an Actuarial Valuation Date of December 31, 2012.

An employer's Reporting Date under GASB 68 is the employer's fiscal year-end. However, the information reported as of that date can be based on a Measurement Date up to 12 months earlier. There is an additional constraint that the Actuarial Valuation Date can be no more than 30 months prior to the Reporting Date.

For PERS employers with a June 30 fiscal year-end, the initial Reporting Date required under GASB 68 is June 30, 2015. The information contained in the attached exhibits can be used for GASB 68 reporting at this date, because it satisfies both prongs of the timing requirements: the Measurement Date (June 30, 2014) is 12 months prior to the Reporting Date and the Actuarial Valuation Date (December 31, 2012) is 30 months prior to the Reporting Date.

PERS employers with other than a June 30 fiscal year-end will need to wait for the publication of system results based on a June 30, 2015 Measurement Date in order to comply with GASB's timing requirements. (For example, an employer with an initial December 31, 2015 Reporting Date should use system results developed at the June 30, 2015 Measurement Date, which will be based on a December 31, 2013 Actuarial Valuation Date.) **This means employers with a fiscal year-end other than June 30 should not use the results from the attached exhibits for their initial GASB 68 reporting, unless they are adopting GASB 68 early.**

Valuation

The December 31, 2012 Actuarial Valuation is used to develop the GASB 67 and GASB 68 financial reporting results for the Tier 1/Tier 2 and OPSRP liabilities as of June 30, 2013 and June 30, 2014. The formal December 31, 2012 Actuarial Valuation report should be referenced for full detail on the data and assumptions used, actuarial methods applied, provisions valued, and other important information regarding the use, applicability, and limitations of actuarial valuation results. The December 31, 2013 Actuarial Valuation was used to develop the estimate of the impact of the *Moro* decision on the Net Pension Liability. Additional information on the actuarial assumptions is included in the 2012 Experience Study report, published September 18, 2013. Differences between the assumptions and plan provisions used for

June 30, 2014 Measurement Date calculations compared to those shown in the aforementioned reports are discussed below.

Plan Changes Reflected

Two legislative changes that occurred after the December 31, 2012 Actuarial Valuation Date affected the plan provisions reflected for financial reporting liability calculations in the attached exhibits. Senate Bill 822, signed into law in May 2013, introduced a graded schedule to determine a retiree's post-retirement COLA and eliminated the Senate Bill 656 and House Bill 3349 tax remedy benefits for retirees and payees not subject to Oregon income tax. Senate Bill 861, signed into law in October 2013, reduced the COLA further beginning in 2014.

For GASB 67 and GASB 68, the benefits valued in the Total Pension Liability are required to be in accordance with the benefit terms legally in effect as of the relevant fiscal year-end for the System. Due to the timing of the benefit changes, this means only Senate Bill 822 is reflected in the June 30, 2013 Measurement Date Total Pension Liability, but that the combined effects of Senate Bills 822 and 861 are reflected in the June 30, 2014 Measurement Date Total Pension Liability. The decrease in the Total Pension Liability resulting from Senate Bill 861, measured as of June 30, 2014, is shown in the Exhibit A as the *"Effect of plan changes"* during the Measurement Period. In accordance with GASB 68, the change in plan provisions is reflected fully in the year the change was made. The difference in COLA provisions is the only difference in the valuation basis used to determine the Total Pension Liability at the two Measurement Dates.

Changes Subsequent to the Measurement Date

As described above, GASB 67 and GASB 68 require the Total Pension Liability to be determined based on the benefit terms in effect at the Measurement Date. Any changes to benefit terms that occurs after that date are reflected in amounts reported for the subsequent Measurement Date. However, paragraph 80f of GASB 68 requires employers to briefly describe any changes between the Measurement Date and the employer's reporting date that are expected to have a significant effect on the employer's share of the collective Net Pension Liability, along with an estimate of the resulting change, if available.

Because the *Moro* decision occurred after the Measurement Date of June 30, 2014, it is treated as a subsequent event. The effect of the decision was to restrict the COLA changes made by Senate Bills 822 and 861 such that they only apply to benefits earned after the legislation was enacted. As a result, the majority of benefits currently accrued will receive a full 2% COLA. Reflecting the larger COLA will increase the System's Total Pension Liability and Net Pension Liability.

Certain aspects of how the *Moro* decision will be implemented administratively are not yet finalized at the time of this letter's publication, including the methodology for determining COLAs payable to members with service both before and after the relevant dates. However, to help employers briefly describe the change, consistent with GASB's parameters, we estimated *Moro's* impact under one possible methodology. The result is shown below on the development of the June 30, 2014 Net Pension Liability, with all results rounded to the nearest $10 million:

	June 30, 2014 Measurement Date	
Net Pension Liability (Asset)	**Prior to Moro**	**After Moro (estimated)**
Total pension liability	$63,130,000,000	$68,050,000,000
Fiduciary net position	65,400,000,000	65,400,000,000
Net pension liability (asset)	(2,270,000,000)	2,650,000,000

Individual System employers can apply their proportionate share as of the Measurement Date (as shown on the attached exhibits) to the results above to estimate the change in their share of the Net Pension Liability due to *Moro.* We believe this will allow employers to satisfy their GASB disclosure needs related to the decision.

Actuarial Basis

Our analysis and conclusions are based on our understanding of the request and the data, methods, and assumptions described herein. Differences in the data, methods, assumptions, and interpretations of the plan provisions may produce different results.

In preparing these results, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. According to the Court, PERS members who earned benefits before and after the effective date "will be entitled to receive during retirement a blended COLA rate that reflects the different COLA provisions applicable to benefits earned at different times." The Supreme Court did not articulate a specific a methodology for determining a member's blended COLA. For purposes of the estimates in this letter, the blending was based on the creditable service earned before and after the effective date. We understand the actual procedure to be used will be established through a PERS administrative rule-making process.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in these reports due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Oregon PERS Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated herein at their September 2013 public meeting.

Some of the actuarial computations presented in the valuation report are for purposes of determining contribution rates for System employers. The actuarial computations presented in this letter under GASB Statement No. 68 are for purposes of assisting the System in providing information to participating employers to fulfill financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our reports. The calculations in the report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations have been made on a basis consistent with our understanding of the System benefit provisions as summarized in the report, and of GASB Statements No. 68. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work has been prepared exclusively for the Oregon Public Employees Retirement System for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning the System's operations, and uses the System's data, which Milliman has not audited. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Sincerely,

Matthew R. Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott D. Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

cc: Rick Howitt
Kyle Knoll
Amanda Marble
Jason Stanley

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